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## PATENT ABSTRACTS OF JAPAN

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(21)Application number :	2001-260439	(71) Applicant :	YAMAHA MOTOR CO LTD
(22)Date of filing :	29.08.2001	(72)Inventor :	SAKOTA SHIGEO FUJIME YOKO

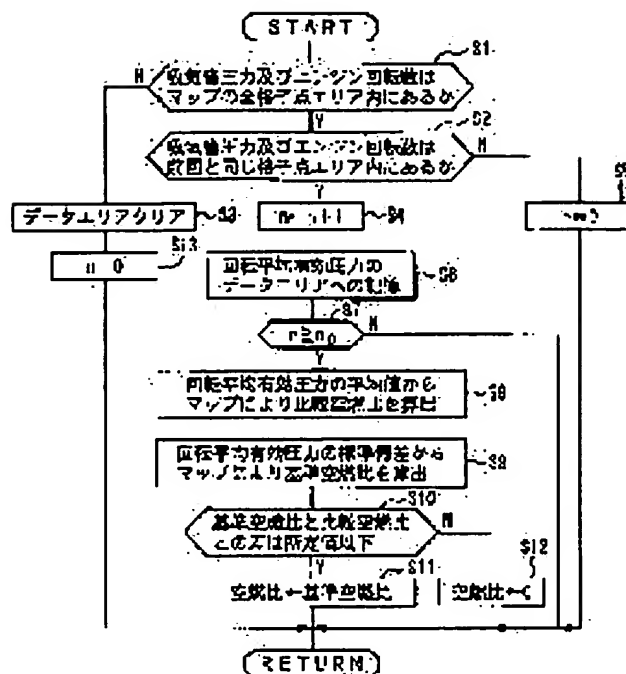
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(54) AIR-FUEL RATIO DETECTING SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To detect an air fuel ratio without using an oxygen sensor.

SOLUTION: A three dimensional map is provided for each air fuel ratio having speed mean effective pressure and fluctuation amount thereof filled in lattice points of engine speed and intake pipe pressure. The air fuel ratio of current speed mean effective pressure and fluctuation amount thereof is calculated by linear interpolation of speed mean effective pressure or fluctuation value air fuel ratio given by three dimensional interpolation. An average value when engine speed and intake pipe pressure continuously stay in the same lattice point area for a designated time is used as the speed mean effective pressure and standard deviation thereof is used as the fluctuation amount. An air fuel ratio calculated from standard deviation of speed mean effective pressure is defined as a reference air fuel ration, and an air fuel ratio calculated from average value is defined as a comparison air fuel ratio. When a difference between both values is, for example 0.5 or less, the more correlative reference air fuel ratio calculated form standard deviation is selected as the final air fuel ratio.



## LEGAL STATUS

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